



College of Commerce
Division of Economic and Financial Studies
Business Department

DEM356

Demographic Techniques

Unit Outline
Semester 2, 2007

Thursdays 1-4 pm, E6A-133

Unit Convenor: Professor Farhat Yusuf

**Prerequisites: DEM127 (P) and
DEM255 (P) or DEM256 (P) or
18 cp with a GPA of 1.5 or higher**

Students in this unit should read this outline carefully at the start of semester. It contains important information. If anything in it is unclear, please consult the unit convenor.

About this unit

This unit will appeal to commerce and social science students, particularly those who are interested in the analysis and interpretation of quantitative data. The unit will focus on some of the more advanced demographic techniques including testing the accuracy of demographic data and their adjustments, curve fitting, the stable population model, multiple decrement tables, medical demography and methods of projecting the households and labour force. In addition to lectures, students will be expected to actively participate in class discussions. Students will get hands-on experience of analysing demographic data for Australia and some overseas countries.

The unit is worth 3 credit points.

Teaching staff

Professor Farhat Yusuf is the unit convenor. Please feel free to contact him if you have any questions, or if there is any way in which he can assist. Professor Yusuf will be available for consultation on Thursdays 10.30am to 12.00pm. For other times please make an appointment by calling him on 9850-8565 or by sending him an e-mail on fyusuf@efs.mq.edu.au.

Classes

The unit will involve attendance at classes on Thursdays from 1-4 pm in E6A-133. It is a requirement of the unit that students attend all lectures. Students must contact Professor Yusuf if due to special circumstances they are unable to attend the class.

Work load

The relationship between workload and credit points, which, for a typical competent student, is 4 hours per credit point per week. Thus, students should plan to spend, on an average, 12 hours per week on the study for this unit. This includes the time spent in lectures as well as *independent study* of various demographic topics. If a student consistently spends less time than that stipulated above then he/she is not studying hard enough and/or does not understand fully the requirements of this unit.

Required and recommended text and materials

There is no prescribed textbook for this unit. Students will be referred to books and other material from time to time. As far as possible, lecture notes will be available to students in the Library E-Reserve. Please note that the lecture notes provided each week offer only a

skeletal coverage of the topics covered in lectures and therefore it is essential that students compile notes of their own during the lectures and from recommended readings.

It is assumed that students are familiar with the various demographic techniques taught in DEM127 . To refresh their memory students may wish to consult the book *Demographic Techniques* by A.H. Pollard, Farhat Yusuf and G.N. Pollard (in particular chapters 1-3, 5, 6 and 8). Copies of these chapters are available in e-reserve.

Students are expected to provide their e-mail address to Professor Yusuf so that he could send them some additional material from time to time.

Students must bring to all classes a calculator with scientific functions.

Learning Objectives and Outcomes

The main *objectives* of this unit include acquainting students with the concepts and assumptions underlying various advanced demographic techniques, and to provide them hands-on experience of analysing demographic data for Australia and other countries. In addition to the discipline based objectives, this unit will also facilitate and enhance the students' generic skills in a range of areas such as critical analysis, creative thinking, problem solving and the use of relevant computer software...

The main *outcomes* that students are expected to achieve from this unit include:

- ability to recognise the quality of demographic data;
- competence in the use of established population models and techniques;
- knowledge and understanding of demographic data for Australia and selected overseas countries.

Assessment

Assessment of the student performance will be based on attendance at lectures, participation in class discussions, one class test and the end-of-year examination. Various components of the assessment are:

End-of-year-examination	70 %
Class test	25 %
Attendance and class participation	5 %

Students must obtain a satisfactory pass in the class test, end-of-year-examination, and should also have a satisfactory attendance and class participation record.

Teaching and Learning Strategy

The unit will be taught through lectures, exercises and class discussions. Students are expected to do most exercises using calculators. However, computers may be used to check their calculations. Students must realise that they will only be able to bring to the class test and the end-of-year examination a calculator with scientific functions but without text-returning capability. Students will also be able to bring a one-sheet of A4 size paper with formulae written on one or both sides of the sheet.

Schedule of Classes

<u>Week</u>	<u>Date</u>	<u>Topic</u>
1	2/8	Introduction. Revision of basic demographic techniques.
2	9/8	Testing the accuracy of demographic data – I.
3	16/8	Testing the accuracy of demographic data – II.
4	23/8	Smoothing and adjusting demographic data - I.
5	30/8	Smoothing and adjusting demographic data – II.
6	6/9	Stable population model – I.
7	13/9	Stable population model – II. MID SEMESTER BREAK.
8	4/10	Component analysis.
9	11/10	Class test.
10	18/10	Medical demography – I.
11	25/10	Medical demography - II.
12	1/11	Multiple decrement tables.
13	8/11	Revision and conclusion.

Examinations

You are expected to present yourself for examination at the time and place designated in the University Examination Timetable. The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for Special Consideration. Information about unavoidable disruption and the special consideration process is available on the EFS website: www.efs.mq.edu.au. If a Supplementary Examination is granted as a result of the Special Consideration process the examination will be scheduled after the conclusion of the official examination period.

Timetables can be found at

<http://www.timetables.mq.edu.au/exam>

<http://www.reg.mq.edu.au/Forms/APSCons.pdf>

You are advised that it is Macquarie University policy not to set early examinations for individuals or groups of students. All students are expected to ensure that they are available until the end of the teaching semester that is the final day of the official examination period.

University Policy on Grading

Academic Senate has a set of guidelines on the distribution of grades across the range from fail to high distinction. Your final result will include one of these grades plus a standardised numerical grade (SNG).

Please note that your raw mark for a unit (*i.e.*, the total of your marks for each assessment component) may not be the same as the SNG which you receive. Under the Senate guidelines, results may be scaled to ensure that there is a degree of comparability across the university, so that units with the same past performances of the students should achieve similar results. It is important that you realise that the policy does not require that a minimum number of students are to be failed in any unit. In fact it does something like the opposite, in requiring examiners to explain their actions if more than 20% of students fail in a unit.

The process of scaling does not change the order of marks among students. A student who receives a higher raw mark than another will also receive a higher final scale mark. For details of the policy see the *2007 Handbook of Undergraduate Studies*.

For an explanation of the policy see

<http://www.mq.edu.au/senate/MQUonly/Issues/Guidelines2003.doc> or

<http://www.mq.edu.au/senate/MQUonly/Issues/detailedguidelines.doc>

Illness or Unavoidable Disruption

The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to

consider applying for Special Consideration. If a Supplementary Examination is granted as a result of the Special Consideration process the examination may be scheduled after the conclusion of the official examination period. Information about the special consideration process will be available at www.efs.mq.edu.au

Please note that it is Macquarie University policy not to set early examinations for individuals or groups of students. All students are expected to ensure they are available until the end of the teaching semester that is the final day of the examination period.

Plagiarism

The University defines plagiarism in its rules: “Plagiarism involves using the work of another person and presenting it as one’s own.” Plagiarism is a serious breach of the University’s rules and carries significant penalties. You must read the University’s practices and procedures on plagiarism. These can be found in the *2007 Handbook of Undergraduate Studies*.

The policies and procedures explain what plagiarism is, how to avoid it, the procedures that will be taken in cases of suspected plagiarism, and the penalties if a student is found guilty. Penalties may include a deduction of marks, failure in the unit, and/or referral to the University Discipline Committee.

Student Support Services

Macquarie University provides a range of academic student support services. Details of these services can be found in the *2007 Handbook of Undergraduate Studies* and the university website: <http://www.student.mq.edu.au>.

Classroom Etiquette

Students are expected to arrive on time, certainly before five minutes past the hour, and not to leave until the class ends. If you have a recurring problem that makes you late, or forces you to leave early, have the courtesy to discuss this with your lecturer/tutor.
